Developing a future workforce for a Community Diagnostic Centre

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INTRODUCTION

The Professor Sir Mike Richards Report of the Independent Review of Diagnostics Services for NHS England defined several key actions which would be required to meet the increasing diagnostic activity demand in the years ahead. One of these actions was the creation of Community Diagnostic Centres established away from acute hospital sites and a second was that diagnostic services should be organised in a manner that where possible patients would only have to attend once to have all their diagnostic tests completed. This has become even more important with the impact COVID-19 as it means patients could have all diagnostic work undertaken in one visit and footfall at acute hospitals would be minimised. At the Manchester Heart Institute, the pandemic has merely accelerated existing innovative plans to reconfigure the patient diagnostic pathway. The pandemic has seen cardiology clinics of 40 plus patients physically attending outpatients and all requiring an ECG disappear and replaced with virtual consultant clinic appointments using telemedicine. Telemedicine has been recommended to continue being utilised post pandemic, both by the GIRFT (Getting It Right First Time) Cardiology report and by Professor Sir Mike Richard's Report. However, these patients will still need diagnostics performing. Our plan is to take our existing Assistant Practitioner Level (Band 3) workforce who would have historically been performing ECGs in large physical consultant cardiology clinics and retrain them to deliver several basic diagnostic tests regularly required by patients to a high level of accuracy and efficiency. Delivered in a one stop Community Diagnostic Centre (CDC).

OBJECTIVES

- To develop a skilled pool of Cardiorespiratory Diagnosticians.
- Who are able to perform a wide range of key diagnostic tests in a CDC setting to a high level of accuracy and efficiency.

100 years British Cardiovascular Society

Emerging Leaders Programme

MATERIALS & METHODS

Prior work on diagnostic pathways had identified which key diagnostic test modalities our Assistant practitioners would need to be able to perform for the Community Diagnostic Centre (CDC). An Advanced Specialist Cardiac Physiologist (Band 7) was tasked with the devising a 13 week training programme (Table 1) to provide both theoretical learning and practical experience. Each trainee had a logbook to ensure tests were performed in sufficient numbers before competency assessment. There were clear objectives for competency sign off to develop accurate and autonomous practice. An initial meeting was held on 13th September 2021 with key stakeholders from Respiratory to agree training programme and plan to accommodate spirometry, FeNo and Capillary blood gas sampling. Engagement was sought with the Cardiology Outpatient Specialist Nurses to allow completion of the 6-minute walk tests. Engagement of the Assistant Practitioners Line Managers was also sought and an agreement to release them on a regular basis from existing clinical service to undertake training. Regular meetings were held with the Assistant Practitioners to engage and lead them through a change curve, get feedback and check progression. Three Assistant Practitioners commenced the training programme on 20th September 2021, they had an existing background in Cardiac Diagnostics and were already competent and autonomous in performing ECGs and all aspects of Ambulatory Monitoring hook up.

Week 1	MFT Trust Induction Start cardiac rotation – first week observational Complete eLearning Course for Venepuncture
Week 2	Start cardiac theory lectures – x2 sessions of teaching Attend MFT Venepuncture course Start ECG practical skills
Week 3	Start venepuncture competency assessments Continue cardiac theory lectures Continue practical ECG skills Undertake ambulatory monitoring hook up skills (LifeCard, R.Test and BP)
Week 4	Continue venepuncture competency assessments Continue cardiac theory lectures Continue practical ECG and ambulatory monitoring hook up skills
Week 5	Complete final sign off for venepuncture Competency Assessment Document Continue cardiac theory lectures Continue practical ECG and ambulatory monitoring hook up skills
Week 6	Undertake assessments for ECG and ambulatory monitoring hook up practical skills Undertake ECG 'Dangerous rhythms' assessment
Week 7	Respiratory First week observational – spirometry, pulse oximetry, 6MWT, blood gas analysis Learning around basic respiratory physiology theory and lung function equipment
Week 8	Respiratory Start with hands on spirometry testing under supervision. Continued learning around physiological theory.
Week 9	Respiratory Continue with hands on spirometry training. Begin with hands on 6MWT and blood gas analysis. Understanding of basic blood gas theory – i.e. parameters that require urgent medical assessment.
Week 10	Respiratory Continue with all aspects of testing and learning. Independently working, with work reviewed by senior staff.
Week 11	Respiratory In house assessment of spirometry, 6MWT and blood gas competency. Ensure training portfolio completed.
Week 12	Refresher days within cardiology/ for venepuncture
Week 13	Check in with supervisors in each area to ensure competencies and logbooks are complete

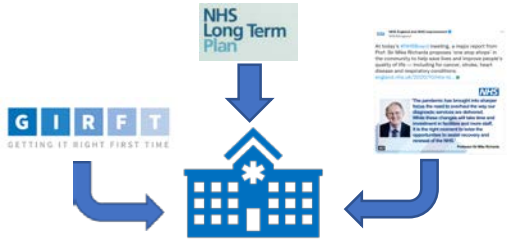
Table 1: Outline of 13 Week Training Plan

RESULTS

Diagnostic Test	Number to be performed	Trainee 1 (DB)	Trainee 2 (EM)
Electrocardiography (ECG)	20	Existing Competency Sign Off	Existing Competency Sign Off
Ambulatory Monitoring (ECG and BP)	50*	Existing Competency Sign Off	Existing Competency Sign Off
Spirometry	20	20	20
6-minute walk test	10	2	2
FeNo	20	6	5
Capillary blood gas sampling and analysis	20	5	4
Venepuncture	10	0	0

Table 2: Current performed test numbers (* LifeCard, R Test and BP)

The original go live date for the Community Diagnostic Centre was the 31st January 2022 which gave 19 weeks from initiation of training programme for all aspects to be completed and extra time to finish any outstanding components accounting for annual leave or sickness. One trainee moved job roles very early into the training programme to be permanently based in the Respiratory Department. This trainee once fully trained in Respiratory will then recommence the training programme to complete the other aspects. Both remaining trainees have been attending training in the Respiratory Department on a weekly basis. Both trainees have completed logbook numbers for spirometry but have yet to complete a competency sign off. There were difficulties securing venepuncture practical experience initially. The Phlebotomy department were approached, but they had no further training capacity. Practical experience has only just been secured in Cardiac Outpatients hence neither trainee has logged any hands on experience in this test. The current numbers of tests performed against the logbook expectations are laid out in Table 2. The CDC go live date was pushed back from January 2022 to April 2022 and then pushed back again. With no hard deadline it has been 34 weeks since initiation of training programme which has allowed impetus to be lost and the time frame of the training to slide. There have been difficulties getting mentors in all areas to commit to signing off competency assessments for trainees in the agreed time frame.



Community Diagnostic Centres

Picture 1: Proposed Location of first Cardiac Diagnostic Centre in Greater Manchester

CONCLUSIONS

When service demands and methods of delivery change, the workforce must adapt and change too. This project demonstrates how an existing skilled workforce can be given additional training to deliver a range of diagnostic tests. However as with any new initiative requiring collaboration between departments and requiring individuals to change working practices, there are challenges and difficulties to overcome.

Go live date for the CDC at Withington Community Hospital (Picture 1) has been pushed back several times from original target of January 2022. A shift in focus now means that the Spoke aspects (i.e., delivery of diagnostic tests in primary care environments) of the Hub and Spoke Model of the Manchester & Trafford Community Diagnostic Centre are being concentrated on first with a view to "go live" in July 2022.

NEXT STEPS

- Reenforce to mentors in different training areas and the trainees themselves of the importance of timely completion of hands-on experience in sufficient numbers to complete logbook.
- Expedite competency assessments when trainee and mentors feel it is appropriate.
- Ensure all aspects are completed before Spoke go live in July 2022.

REFERENCES

1. **Richards, Professor Sir Mike.** *Diagnostics: Recovery and Renewal-Report of the Independent Review of Diagnostic Services for NHS England.* London : NHS England, 2022.
2. **Ray , Professor Simon and Clarke , Dr Sarah .** *Cardiology: GIRFT Programme National Speciality Report.* London : Getting It Right First Time NHS England, 2021.